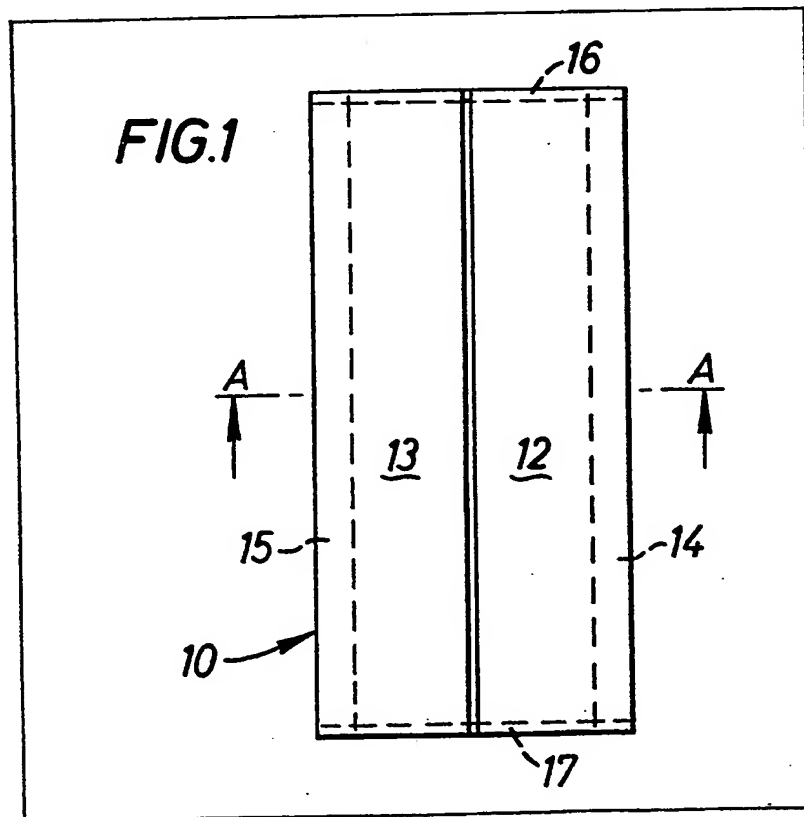


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(54) Seat cover

(57) A seat cover comprises an elongate envelope 10 of flexible material having an elongate aperture extending longitudinally thereof, the envelope having gussets 14, 15 at each longitudinal edge, and the front and rear faces being welded together at 16, 17.



GB 2 011 254 A

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FIG. 1

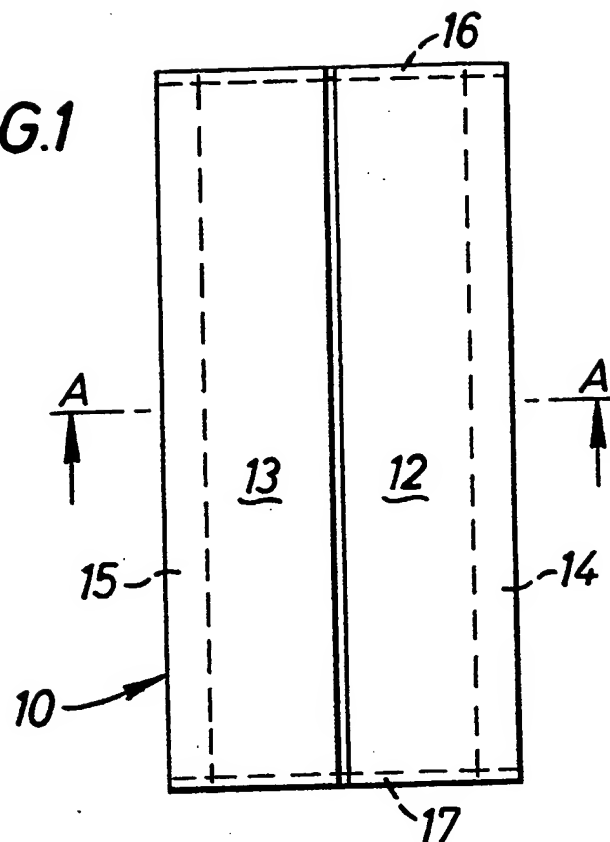


FIG. 2

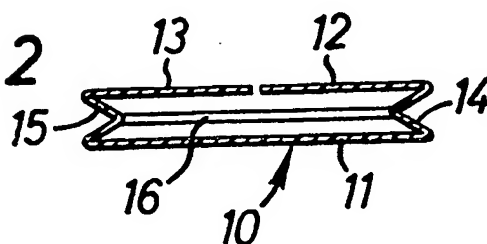
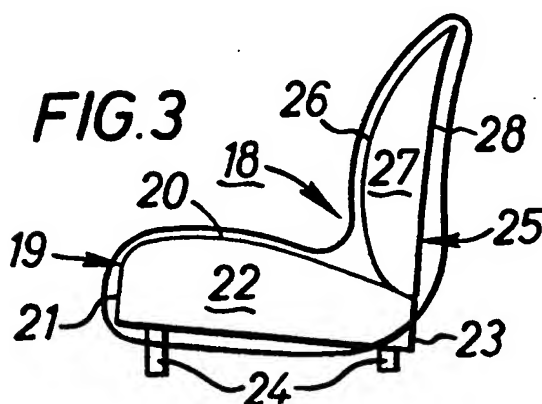
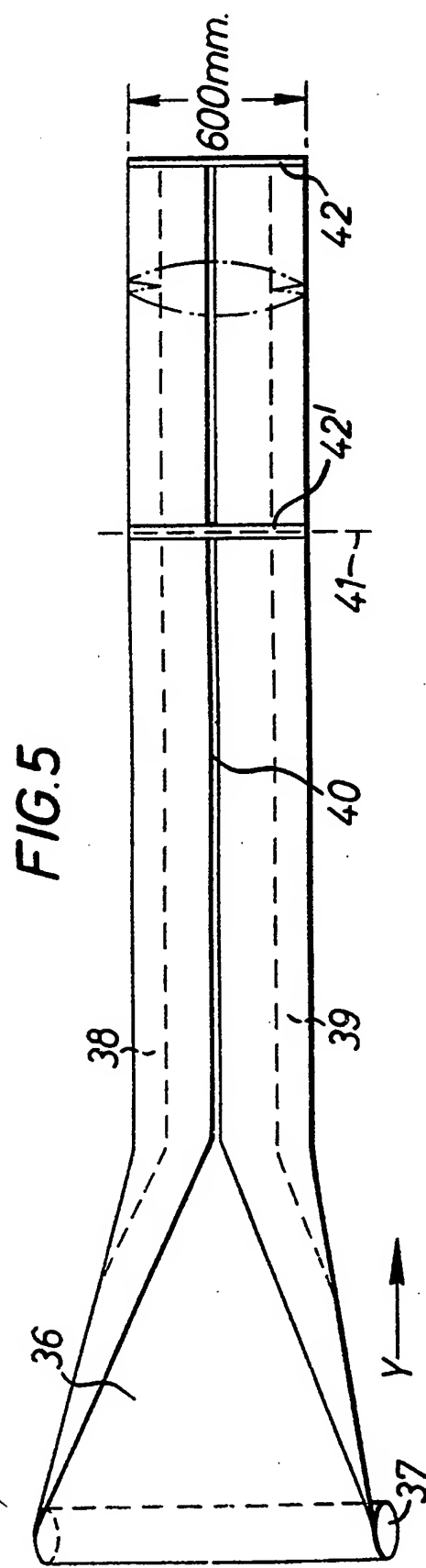
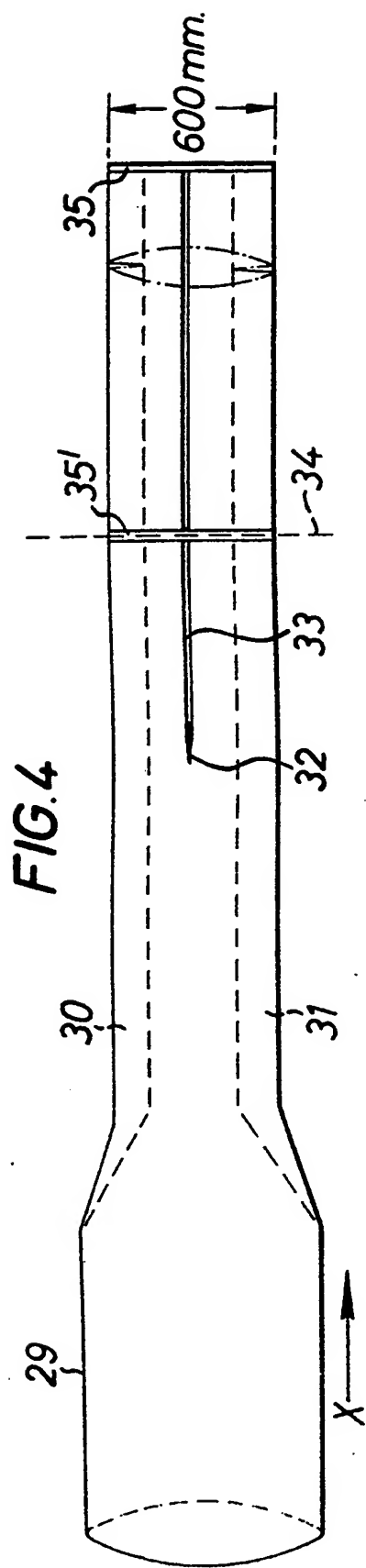


FIG. 3





SPECIFICATION

Seat covers

5 This invention relates to seat covers.

It is known to provide seat covers for motor vehicles, the seat covers being used to cover seats of motor vehicles when there is a possibility of the seats otherwise being soiled by the clothes of garage mechanics when carrying out test routines on the vehicles. The covers generally are of synthetic plastics material which is extruded in the form of a tube. Each tube generally is folded inwardly to provide a pair of gussets extending longitudinally of the tube and is subsequently flattened. A longitudinal portion of each tube is then removed to provide an elongate web of synthetic plastics material having longitudinal folds providing four contiguous superimposed layers at opposite parallel longitudinal edge portions of the web, the upper and lower layers in transverse cross-section extending inwardly transversely beyond the intermediate layers to provide two superimposed layers and one of the upper or lower layers having a longitudinal portion removed therefrom so that the other of the upper or lower layers provides a single layer inwardly transversely of the portions having the two layers. The single layer is asymmetrical of the central longitudinal axis of the tube. The web is severed and sealed at predetermined intervals to provide a plurality of covers each comprising a large pocket and a small pocket, the openings of the pockets being adjacent one another and spaced from one another by a front panel contiguous with the pockets.

35 In use, each cover is located on a vehicle seat by placing the front panel of the cover on the seat with the pockets lowermost and with the larger pocket adjacent the top of a back portion of the seat. The larger pocket then is opened and pulled downwardly so that the upper back portion of the seat is contained within the larger pocket. The front panel then is spread downwardly of the back portion and forwardly of a seat portion of the seat and the smaller panel is opened and pulled downwardly so that a front wall of the seat portion of the seat is contained within the smaller pocket. The front panel of the cover thus covers the forward surface of the back portion of the seat and the upper surface of the seat portion of the seat.

50 A disadvantage of manufacturing seat covers in accordance with the method described above is that the method results in wastage of material due to the necessity of removing a longitudinal portion of each tube. An other disadvantage is that the width of the tube is determined by the sum of the height of the back portion and the distance from the back portion to the forward edge of the seat portion of vehicle seats which are to receive the covers. Generally, it is necessary to provide a tube of about 1180 mm in width in order to provide seat covers suitable for most vehicle seats and it has been found that, when tubes of such width are wound into rolls, the rolls are flaccid and consequently are difficult to handle. A further disadvantage is that when the tubes are wound into rolls, the superimposed layers of the

tubes tend to lose their formation due to the smooth surfaces of the synthetic plastics material in contact with one another and the asymmetry of the layers of the tube causing the layers to slide relative to one another.

70 According to the present invention, there is provided a seat cover comprising an elongate envelope of flexible material having an elongate aperture extending longitudinally thereof so that when the envelope is located with the aperture adjacent a seat and with the longitudinal axis of the aperture extending at right-angles to a transverse axis of the seat and when the aperture is widened to embrace a back portion and a seating portion of the seat, the envelope covers at least a forward surface of the back portion and an upper surface of the seating portion of the seat.

The flexible material may be plastics and the envelope may comprise a plurality of panels joined together by welds. The welds may extend adjacent transverse edges of the panels. The envelope may be provided with inwardly directed folds adjacent longitudinal edges of the panels. The flexible material may be polyethylene and may be transparent.

80 Also according to the present invention there is provided a method of manufacturing seat covers comprising the steps of forming a plurality of superimposed layers of elongate flexible plastics material the layers being contiguous at adjacent longitudinal edge margins thereof and an outer one of the layers comprising two elongate panels having longitudinal edges adjacent one another, welding the layers together in rectilinear welds extending transversely of the layers at intervals spaced longitudinally of the layers and severing the material in the welds.

The layers may be provided by forming a tube of the material and flattening the tube. The panels may be provided by slitting the tube longitudinally thereof. The layers may be provided by forming a longitudinal strip and folding longitudinal side margins of the strip towards one another. The flattened tube or the folded strip may be provided with inwardly directed folds adjacent the longitudinal side margins thereof. The layers may comprise separate sheets welded in rectilinear welds extending longitudinally of the layers. At least some of the layers may be provided with inwardly directed folds adjacent the longitudinal side margins thereof. The material may be polyethylene and may be transparent.

115 Following is a description by way of example only and with reference to the accompanying drawings of preferred methods of carrying the invention into effect.

120 In the drawings:—

FIGURE 1 is a plan view of a seat cover in accordance with the present invention, the seat cover being viewed from the rear;

125 FIGURE 2 is a cross-section on the line A:A of FIGURE 1;

FIGURE 3 is a diagrammatic representation of a vehicle seat provided with the seat cover;

130 FIGURE 4 is a diagrammatic representation of one example of a method of manufacturing seat covers

as shown in FIGURES 1 to 3 and,

FIGURE 5 is a diagrammatic representation of an alternative embodiment of a method of manufacturing seat covers as shown in FIGURES 1 to 3.

Referring to FIGURES 1 to 3 of the drawings, there is shown a seat cover 10 made of transparent synthetic plastics material such as polyethylene. The seat cover has an elongate front panel 11 and two elongate rear panels 12 and 13, inner longitudinal edges of which extend adjacent one another in a direction substantially centrally and longitudinally of the front panel 11. The front panel 11 and the rear panels 12 and 13 have adjacent outer longitudinal side margins which are contiguous with inwardly extending folded portions providing longitudinally extending gussets 14 and 15 in the side margins between the front panel 11 and rear panels 12 and 13. The front panel 11 is welded to the rear panels 12 and 13 in transverse welds 16 and 17 at opposite ends of the panels 11, 12 and 13.

The seat cover 10 is used to cover a seat 18. The seat 18 has a seating portion 19 comprising a substantially rectangular upper surface 20, in plan view, a front wall 21 depending from a forward edge of the upper surface 20, parallel side walls 22 and a rear wall 23, the rear wall extending parallel to the front wall 21. The side walls 22 are provided on a lower surface thereof with support members 24 for supporting the seat 18 on a surface. The seat 18 also is provided with a back portion 25 upstanding from a rear edge margin of the upper surface 20 of the seating portion 19. The back portion 25 has a front surface 26 which is substantially rectangular when viewed in a direction rearwardly from the front wall 21 of the seating portion 19 and which is convex in side elevation. The back portion 25 has side portions 27 and a rear surface 28.

In use, the seat cover 10 is placed on the seat 18 with a longitudinal axis of the cover extending at right-angles to a transverse axis of the seat and with the rear panels 12 and 13 adjacent the upper surface 20 of the seating portion 19 and the front surface 26 of the back portion 25. The back panels 12 and 13 then are pulled apart at one end of the cover 10 sufficient to locate therein an upper edge of the back portion 25 of the seat 18 and the cover 10 is lowered to embrace the upper edge of the back portion 25. The upper edge of the back portion 25 thus is enveloped within the panels 11, 12, and 13 of the seat cover 10. The back panels 12 and 13 then are pulled apart progressively towards the opposite end of the cover 10 and the upper surface 20, the front wall 21 and the side walls 22 of the seating portion 19 are enveloped within the panels 11, 12 and 13 of the seat cover 10. The seat cover 10 is then spread downwardly thereby spreading out the gussets 14 and 15 so that the gussets, at least in the portions thereof intermediate the welds 16 and 17, provide a substantially planar surface extending parallel to the side walls 22 of the seating portion 19 and the side walls 27 of the back portion 25.

Referring now to FIGURE 4 of the drawings, there is shown a tube 29 of synthetic plastics material, such as polyethylene, and which is provided with diametrically opposed inwardly directed folds 30, 31

as it is delivered in the direction X parallel to a longitudinal axis thereof. The tube 29 is flattened at the same time that the folds 30, 31 are provided. The tube then is engaged by a knife 32 so that as the tube moves in the direction of the arrow X, the knife slits the wall of the tube longitudinally as shown at 33. The tube 29 then is engaged by a heated knife 34 extending transversely of the tube, the temperature of the knife effecting a transverse weld 35 and simultaneously severing the tube in the weld 35. The knife is then raised and re-applied to the tube 29 after the tube has travelled a predetermined distance to provide a second weld 35' spaced longitudinally of the tube 29 from the previous weld 35. The tube 29 is severed at the second weld 35' thereby providing an elongate seat cover 10 having longitudinally spaced transverse seals 35 and 35'.

It will be appreciated that the longitudinal folds 30, 31 between the welds 35 and 35' comprise the gussets 14, 15 and the slit 33 provides the panels 12 and 13 of each seat cover 10. It will also be appreciated that each of the welds 35 and 35' provides a weld 16 of one seat cover 10 and a weld 17 of a succeeding or preceding seat cover 10.

Referring now to FIGURE 5 of the drawings, there is shown a web 36 of synthetic plastics material, such as polyethylene, which is drawn from a roller 37 in the direction of the arrow Y and longitudinal side margins of the web 36 are folded inwardly and reversed to provide inwardly directed folds 38, 39 and the longitudinal side edges subsequently are folded inwardly so that opposite longitudinal edges of the web 36 extend parallel to and adjacent one another as shown at 40.

The web 36 is subsequently engaged at predetermined intervals by a heated knife 41 to provide longitudinally spaced transverse severed welds 42 and 42'. The inwardly folded and subsequently reversed folds of the web 36 provide the gussets 14 and 15 of the covers 10, the side edges subsequently folded inwardly provide the panels 12 and 13 of the covers 10 and the welds 42 and 42' provide the welds 16 and 17 of the covers 10. It will be appreciated that instead of melting the synthetic plastics material to provide the welds 35, 35' and 42, 42' and simultaneously severing of the material, each of the welds 35, 35' and 42, 42' may be formed by two welding components having a severing device therebetween so that the synthetic plastics material is severed simultaneously with the welding operation but the severing is not effected by the welding components. It will also be appreciated that each of the welds 35, 35' and 42, 42' may be formed by a single welding component and severing of the synthetic plastics material may be carried out subsequently by a severing device. A severing device may comprise a flying knife, a guillotine, a heated wire or any other device known in the art.

Although the cover 10 is provided with longitudinal gussets 14, 15, it will be appreciated that longitudinal gussets need not necessarily be provided. It will be appreciated that the width of the tube 29 or the web 36 after it has been folded is related to the transverse dimension of the seat 18. In a typical example, the width of the tube 29, or the web 36 after

it has been folded, is 600 mm.

It will also be appreciated that there is no wastage of material in the method of manufacturing seat covers in accordance with the present invention.

- 5 Furthermore, it will be appreciated that the tube 29 or the web 36 after each has been folded, does not include any portion of a layer uncovered by another layer. In consequence, any tendency for the layers to lose their formation is reduced to a minimum.

10 CLAIMS

1. A seat cover comprising an elongate envelope of flexible material having an elongate aperture extending longitudinally thereof so that when the envelope is located with the aperture adjacent a seat and with the longitudinal axis of the aperture extending at right-angles to a transverse axis of the seat and when the aperture is widened to embrace a back portion and a seating portion of the seat, the envelope covers at least a forward surface of the back portion and an upper surface of the seating portion of the seat.

2. A seat cover as claimed in claim 1 wherein the flexible material is plastics material.

3. A seat cover as claimed in claim 2 wherein the envelope comprises a plurality of panels joined together by welds.

4. A seat cover as claimed in claim 3 wherein the welds extend adjacent transverse edges of the panels.

5. A seat cover as claimed in claim 4 wherein the envelope is provided with inwardly directed folds adjacent longitudinal edges of the panels.

6. A seat cover as claimed in any one of the preceding claims wherein the flexible material is polyethylene.

7. A seat cover as claimed in any one of the preceding claims wherein the flexible material is transparent.

8. A method of manufacturing a seat cover comprising the steps of forming a plurality of superimposed layers of elongate flexible plastics material, the layers being contiguous at adjacent longitudinal edge margins thereof and an outer one of the layers comprising two elongate panels having longitudinal edges adjacent one another, welding the layers together in rectilinear welds extending transversely of the layers at intervals spaced longitudinally of the layers and severing the material in the welds.

9. A method as claimed in claim 8 wherein the layers are provided by forming a tube of the material and flattening the tube.

10. A method as claimed in claim 9 wherein the panels are provided by slitting the tube longitudinally thereof.

11. A method according to claim 8 wherein the layers are provided by forming a longitudinal strip and folding longitudinal side margins of the strip towards one another.

12. A method as claimed in any one of claims 8 to 10 wherein the flattened tube is provided with inwardly directed folds adjacent the longitudinal side margins thereof.

13. A method as claimed in claim 11 wherein the folded strip is provided with inwardly directed folds adjacent the longitudinal side margins thereof.

14. A method as claimed in claim 8 wherein the layers comprise separate sheets welded in rectilinear welds extending longitudinally of the layers.

15. A method as claimed in claim 14 wherein the welded sheets are provided with inwardly directed folds adjacent the longitudinal side margins thereof.

16. A method as claimed in claim 15 wherein the material is polyethylene.

17. A method as claimed in claim 16 wherein the material is transparent.

18. A seat cover substantially as hereinbefore described and as illustrated in the accompanying drawings.

19. A method of manufacturing a seat cover substantially as hereinbefore described and as illustrated in the accompanying drawings.

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